

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Erik C. Houge, *et al.*

Serial No.: 10/505,197

Filed: June 10, 2005

Title: MONITORING AND CONTROL OF A FABRICATION PROCESS

Grp./A.U.: 1792

Examiner: Robert M. Kunemund

Confirmation No.: 3716

Mail Stop Appeal Brief-Patents

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Sir:

**APPELLANTS' REPLY BRIEF UNDER 37 C.F.R. §41.41**

In response to the Examiner's Answer mailed July 29, 2008, the Appellants submit this Reply  
Brief as required by 37 C.F.R. §41.41.

## **I. Reply to Examiner's Arguments**

In the Examiner's Answer of July 29, 2008, the Examiner argues that "Appellants have shown no evidence on record to state that the system of Adams et al is the same as an RHEED system and with the same problems." The Appellants respectfully disagree. As provided in the Appeal Brief of May 12, 2008, Manada, in column 1, lines 50-52, explicitly points out that the emission of a high energy electron beam to a surface of a crystal induces defects. (*See, e.g.*, first paragraph of page 7 of the Appeal Brief of May 12, 2008.) Indeed, Manada is directed to the use of a non-high energy electron beam to overcome this very problem. Adams, as the Examiner recognizes, "teaches a means and method of obtaining information about crystal growth using a scanning electron microscope." (*See, e.g.*, Examiner's Answer of July 29, 2008, page 4.) One of ordinary skill in the art at the time of the invention would understand that the scanning electron microscope of Adams would emit a high energy electron beam to a surface of a crystal. As such, the scanning electron microscope of Adams introduces the same problems as a RHEED system, namely giving rise to defects in a crystal. Thus, modifying Manada with Adams renders Manada unsatisfactory for its intended purpose and, as such, the cited combination of Manada and Adams, as applied by the Examiner, is improper and does not establish a *prima facie* case of obviousness for independent Claims 1 and 11 and Claims that depend thereon.

## **II. Conclusion**

For the reasons set forth above, the Claims are patentably nonobvious over Manada in view of Adams. Accordingly, the Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the Examiner's Final Rejection of all of the Appellants' pending claims.

Respectfully submitted,

**HITT GAINES, P.C.**

A handwritten signature in black ink, appearing to read "Steven J. Hanke". The signature is written in a cursive, flowing style.

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Dated: September 29, 2008

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